

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) A method for protecting at least one keratinous fiber from extrinsic damage or repairing at least one keratinous fiber following extrinsic damage comprising

applying to said at least one keratinous fiber a composition comprising at least one compound chosen from C₃ to C₅ monosaccharides substituted with at least one C₁ to C₂₂ carbon chain, and then

heating said at least one keratinous fiber,

wherein said at least one compound is present in an amount effective to protect said at least one keratinous fiber from said extrinsic damage or to repair said at least one damaged keratinous fiber, and

further wherein said composition is applied prior to said heating or during said heating.

2. (original) A method according to claim 1, wherein said composition is applied prior to and during said heating.

3. (original) A method according to claim 1, wherein said composition protects said at least one keratinous fiber from extrinsic damage and repairs at least one keratinous fiber following extrinsic damage.

4. (original) A method according to claim 1, wherein said C₃ to C₅ monosaccharides are chosen from pentoses.
5. (original) A method according to claim 4, wherein said pentoses are chosen from aldopentoses and ketopentoses.
6. (original) A method according to claim 5, wherein said aldopentoses are chosen from xylose, arabinose, lyxose, and ribose.
7. (original) A method according to claim 5, wherein said ketopentoses are chosen from ribulose and xylulose.
8. (original) A method according to claim 1, wherein said C₃ to C₅ monosaccharides are chosen from tetroses.
9. (original) A method according to claim 8, wherein said tetroses are chosen from aldotetroses and ketotetroses.
10. (original) A method according to claim 9, wherein said aldotetroses are chosen from erythrose and treose.
11. (original) A method according to claim 9, wherein said aldotetroses are chosen from erythrulose.
12. (original) A method according to claim 1, wherein said C₃ to C₅ monosaccharides are chosen from trioses.
13. (original) A method according to claim 12, wherein said trioses are chosen from aldotrioses and ketotrioses.
14. (original) A method according to claim 12, wherein said trioses are chosen from glyceraldehyde.

15. (original) A method according to claim 12, wherein said trioses are chosen from dihydroxyacetone.

16. (original) A method according to claim 1, wherein said C₃ to C₅ monosaccharides are chosen from furanoses and derivatives thereof.

17. (original) A method according to claim 1, wherein said C₃ to C₅ monosaccharides are chosen from derivatives of C₃ to C₅ monosaccharides.

18. (original) A method according to claim 17, wherein said derivatives of C₃ to C₅ monosaccharides are chosen from imine derivatives of C₃ to C₅ monosaccharides, hemiacetal derivatives of C₃ to C₅ monosaccharides, hemiketal derivatives of C₃ to C₅ monosaccharides, and oxidized derivatives of C₃ to C₅ monosaccharides.

19. (original) A method according to claim 17, wherein said derivatives of C₃ to C₅ monosaccharides are chosen from oligosaccharides derived from said C₃ to C₅ monosaccharides.

20. (original) A method according to claim 19, wherein said oligosaccharides derived from said C₃ to C₅ monosaccharides are chosen from xylobiose.

21. (original) A method according to claim 17, wherein said derivatives of C₃ to C₅ monosaccharides are further substituted with at least one group different from said at least one C₁ to C₂₂ carbon chain.

22. (original) A method according to claim 1, wherein said at least one C₁ to C₂₂ carbon chain is chosen from linear, branched and cyclic C₁ to C₂₂ carbon chains, which are saturated or unsaturated.

23. (original) A method according to claim 1, wherein said at least one C₁ to C₂₂ carbon chain is substituted.

24. (original) A method according to claim 1, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ to C₁₈ carbon chains.

25. (original) A method according to claim 1, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ carbon chains and C₁₈ carbon chains.

26. (original) A method according to claim 25, wherein said C₁₆ carbon chains are linear hexadecyl chains.

27. (original) A method according to claim 26, wherein said C₁₈ carbon chains are linear octadecyl chains.

28. (original) A method according to claim 1, wherein said at least one compound is substituted with said at least one C₁ to C₂₂ carbon chain at the C₁ position of said at least one compound.

29. (original) A method according to claim 1, wherein said at least one compound is substituted with said at least one C₁ to C₂₂ carbon chain at at least one of the hydroxyl groups of said at least one compound.

30. (original) A method according to claim 1, wherein said at least one compound is present in said composition in an amount ranging from 0.01% to 10% by weight relative to the total weight of the composition.

31. (original) A method according to claim 30, wherein said at least one compound is present in said composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

32. (original) A method according to claim 1, wherein said composition further comprises at least one additional sugar different from said at least one compound

chosen from C₃ to C₅ monosaccharides substituted with at least one C₁ to C₂₂ carbon chain.

33. (original) A method according to claim 32, wherein said at least one additional sugar is chosen from monosaccharides, oligosaccharides and polysaccharides.

34. (original) A method according to claim 33, wherein said monosaccharides are chosen from hexoses.

35. (original) A method according to claim 34, wherein said hexoses are chosen from allose, altrose, glucose, mannose, gulose, idose, galactose, talose, sorbose, psicose, fructose, and tagatose.

36. (original) A method according to claim 32, wherein said at least one additional sugar is substituted with at least one C₁ to C₂₂ carbon chain.

37. (original) A method according to claim 36, wherein said at least one C₁ to C₂₂ carbon chain is chosen from linear, branched and cyclic C₁ to C₂₂ carbon chains, which are saturated or unsaturated.

38. (original) A method according to claim 37, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ to C₁₈ carbon chains.

39. (original) A method according to claim 37, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ carbon chains and C₁₈ carbon chains.

40. (original) A method according to claim 39, wherein said C₁₆ carbon chains are linear hexadecyl chains

41. (original) A method according to claim 39, wherein said C₁₈ carbon chains are linear octadecyl chains.

42. (original) A method according to claim 36, wherein said at least one additional sugar is substituted with said at least one C₁ to C₂₂ carbon chain at the C₁ position of said at least one additional sugar.

43. (original) A method according to claim 32, wherein said at least one additional sugar is present in said composition in an amount ranging from 0.01% to 30% by weight relative to the total weight of the composition.

44. (original) A method according to claim 43, wherein said at least one additional sugar is present in said composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

45. (original) A method according to claim 1, wherein said composition is in the form of a liquid, oil, paste, stick, dispersion, emulsion, lotion, gel, or cream.

46. (original) A method according to claim 1, wherein said at least one keratinous fiber is hair.

47. (original) A method according to claim 1, wherein the extrinsic damage is caused by heating, UV radiation, or chemical treatment.

48. (original) A method according to claim 1, further comprising at least one suitable additive chosen from anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, penetrating agents, antioxidants, sequestering agents, opacifying agents, solubilizing agents, emollients, colorants, screening agents, preserving agents, proteins, vitamins, silicones, polymers, plant oils, mineral oils, and synthetic oils.

49. (currently amended) A method for protecting at least one keratinous fiber from extrinsic damage or repairing at least one keratinous fiber following extrinsic damage comprising:

applying to said keratinous fiber a composition comprising:

(i) at least one compound chosen from C₃ to C₅ monosaccharides substituted with at least one C₁ to C₂₂ carbon chain; and

(ii) at least one film forming agent, and then

heating said at least one keratinous fiber,

wherein said at least one compound and said at least film forming agent are present in an amount effective to protect said at least one keratinous fiber from said extrinsic damage or to repair said at least one damaged keratinous fiber, and

further wherein said composition is applied prior to said heating or during said heating.

50. (original) A method according to claim 49, wherein said composition is applied prior to and during said heating.

51. (original) A method according to claim 49, wherein said composition protects said at least one keratinous fiber from extrinsic damage and repairs at least one keratinous fiber following extrinsic damage.

52. (original) A method according to claim 49, wherein said C₃ to C₅ monosaccharides are chosen from pentoses.

53. (original) A method according to claim 52, wherein said pentoses are chosen from aldopentoses and ketopentoses.

54. (original) A method according to claim 53, wherein said aldopentoses are chosen from xylose, arabinose, lyxose, and ribose.

55. (original) A method according to claim 53, wherein said ketopentoses are chosen from ribulose and xylulose.

56. (original) A method according to claim 49, wherein said C₃ to C₅ monosaccharides are chosen from tetroses.

57. (original) A method according to claim 56, wherein said tetroses are chosen from aldotetroses and ketotetroses.

58. (original) A method according to claim 57, wherein said aldotetroses are chosen from erythrose and treose.

59. (original) A method according to claim 57, wherein said aldotetroses are chosen from erythrulose.

60. (original) A method according to claim 49, wherein said C₃ to C₅ monosaccharides are chosen from trioses.

61. (original) A method according to claim 60, wherein said trioses are chosen from aldotrioses and ketotrioses.

62. (original) A method according to claim 60, wherein said trioses are chosen from glyceraldehyde.

63. (original) A method according to claim 60, wherein said trioses are chosen from dihydroxyacetone.

64. (original) A method according to claim 49, wherein said C₃ to C₅ monosaccharides are chosen from furanoses and derivatives thereof.

65. (original) A method according to claim 49, wherein said C₃ to C₅ monosaccharides are chosen from derivatives of C₃ to C₅ monosaccharides.

66. (original) A method according to claim 65, wherein said derivatives of C₃ to C₅ monosaccharides are chosen from imine derivatives of C₃ to C₅ monosaccharides, hemiacetal derivatives of C₃ to C₅ monosaccharides, hemiketal derivatives of C₃ to C₅ monosaccharides, and oxidized derivatives of C₃ to C₅ monosaccharides.

67. (original) A method according to claim 65, said derivatives of C₃ to C₅ monosaccharides are chosen from oligosaccharides derived from said C₃ to C₅ monosaccharides.

68. (original) A method according to claim 67, wherein said oligosaccharides derived from said C₃ to C₅ monosaccharides are chosen from xylobiose.

69. (original) A method according to claim 65, wherein said derivatives of C₃ to C₅ monosaccharides are further substituted with at least one group different from said at least one C₁ to C₂₂ carbon chain.

70. (original) A method according to claim 49, wherein said at least one C₁ to C₂₂ carbon chain is chosen from linear, branched and cyclic C₁ to C₂₂ carbon chains, which are saturated or unsaturated.

71. (original) A method according to claim 49, wherein said at least one C₁ to C₂₂ carbon chain is substituted.

72. (original) A method according to claim 49, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ to C₁₈ carbon chains.

73. (original) A method according to claim 49, wherein said at least one C₁ to C₂₂ carbon chain is chosen from C₁₆ carbon chains and C₁₈ carbon chains.

74. (original) A method according to claim 73, wherein said C₁₆ carbon chains are linear hexadecyl chains.

75. (original) A method according to claim 73, wherein said C₁₈ carbon chains are linear octadecyl chains.

76. (original) A method according to claim 49, wherein said at least one compound is substituted with said at least one C₁ to C₂₂ carbon chain at the C₁ position of said at least one compound.

77. (original) A method according to claim 49, wherein said at least one compound is substituted with said at least one C₁ to C₂₂ carbon chain at at least one of the hydroxyl groups of said at least one compound.

78. (original) A method according to claim 49, wherein said at least one compound is present in said composition in an amount ranging from 0.01% to 10% by weight relative to the total weight of the composition.

79. (original) A method according to claim 78, wherein said at least one compound is present in said composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

80. (original) A method according to claim 49, wherein said composition further comprises at least one additional sugar different from said at least one compound chosen from C₃ to C₅ monosaccharides substituted with at least one C₁ to C₂₂ carbon chain.

81. (original) A method according to claim 80, wherein said at least one additional sugar is chosen from monosaccharides, oligosaccharides and polysaccharides.

82. (original) A method according to claim 81, wherein said monosaccharides are chosen from hexoses.

83. (original) A method according to claim 82, wherein said hexoses are chosen from allose, altrose, glucose, mannose, gulose, idose, galactose, talose, sorbose, psicose, fructose, and tagatose.

84. (original) A method according to claim 80, wherein said at least one additional sugar is substituted with at least one C_1 to C_{22} carbon chain.

85. (original) A method according to claim 84, wherein said at least one C_1 to C_{22} carbon chain is chosen from linear, branched and cyclic C_1 to C_{22} carbon chains, which are saturated or unsaturated.

86. (original) A method according to claim 84, wherein said at least one C_1 to C_{22} carbon chain is chosen from C_{16} to C_{18} carbon chains.

87. (original) A method according to claim 84, wherein said at least one C_1 to C_{22} carbon chain is chosen from C_{16} carbon chains and C_{18} carbon chains.

88. (original) A method according to claim 87, wherein said C_{16} carbon chains are linear hexadecyl chains.

89. (original) A method according to claim 87, wherein said C_{18} carbon chains are linear octadecyl chains.

90. (original) A method according to claim 84, wherein said at least one additional sugar is substituted with said at least one C_1 to C_{22} carbon chain at the C_1 position of said at least one additional sugar.

91. (original) A method according to claim 80, wherein said at least one additional sugar is present in said composition in an amount ranging from 0.01% to 10% by weight relative to the total weight of the composition.

92. (original) A method according to claim 91, wherein said at least one additional sugar is present in said composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

93. (original) A method according to claim 49, wherein said composition is in the form of a liquid, oil, paste, stick, dispersion, emulsion, lotion, gel, or cream.

94. (original) A method according to claim 49, wherein said at least one keratinous fiber is hair.

95. (original) A method according to claim 49, wherein the extrinsic damage is caused by heating, UV radiation, or chemical treatment.

96. (original) A method according to claim 49, further comprising at least one suitable additive chosen from anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, penetrating agents, antioxidants, sequestering agents, opacifying agents, solubilizing agents, emollients, colorants, screening agents, preserving agents, proteins, vitamins, silicones, polymers, plant oils, mineral oils, and synthetic oils.

97. (original) A method according to claim 49, wherein said at least one film forming agent is chosen from film forming polymers and film forming resins.

98. (original) A method according to claim 49, wherein said at least one film forming agent is neutralized.

99. (original) A method according to claim 49, wherein said at least one film forming agent is present in an amount ranging from 0.01% to 30% by weight relative to the total weight of the composition.

100. (original) A method according to claim 99, wherein said at least one film forming agent is present in an amount ranging from 0.1% to 10% by weight relative to the total weight of the composition.

101-204. (canceled).